## What is claimed is:

1. An etching method comprising:

an etching gas supply step of supplying an etching gas through a gas supply system into a plasma producing chamber;

a plasma producing step of producing radicals in the plasma producing chamber by converting the etching gas into a plasma by applying radio frequency power to the etching gas; and

an etching step of etching an object to be processed in a reaction chamber, which is connected to the plasma producing chamber and is evacuated, by the radicals flowing from the plasma producing chamber into the reaction chamber;

wherein the etching gas is supplied through the gas supply system at an etching gas supply rate of 8.4 sccm or above for a substantial volume of one liter of the reaction chamber.

- 2. The etching method according to claim 1, wherein the plasma producing step converts the etching gas into a plasma by inductive coupling using an induction coil.
- 3. The etching method according to claim 1, wherein the etching step uses chlorine gas as the etching gas and etches a polysilicon film formed on the object to be processed.

